REMARKS

This is a full and timely response to the outstanding final Office Action mailed March 14, 2005 (Paper No. 20050309). Upon entry of this response, claims 1-28, 31-28, 50-57, and 90-93 are pending in the application. In this response, claims 90-93 have been added and claims 1, 5-10, 15-16, 21-24, 31,34-38, 50, and 53-57 have been amended. Applicant respectfully requests that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

1.   Restriction Requirement

The Office Action alleges that claims 78-89 are directed to an invention that is independent or distinct from the invention originally claimed, and also indicates that claims 78-89 are withdrawn from consideration as being directed to a non-elected invention. Applicant cancels claims 78-89, and expressly reserves the right to present withdrawn claims 78-89, or variants thereof, in continuing applications to be filed subsequent to the present application.

2.   Rejection of Claims 1, 31, and 50 under 35 U.S.C. §103

Claims 1, 31, and 50 have been rejected under §103(a) as allegedly being obvious over *Ikeda* (U.S. 6,118,825) in view of *Davis* (U.S. 4,545,054). Applicant respectfully submits that the rejection has been overcome by claim amendments made herein. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical,* 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller,* 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

Applicant has amended claim 1 to recite "a memory element, the memory element being capable of storing a plurality of prior data inputs and outputting the plurality of prior data inputs after a time delay having a value M, where M is configurable at run-time to a first value." Claim 16 has been amended to recited "a time delay element having a delay value M, where M is configurable at run-time to a first value." Claim 31 has been amended to recite a "second means for delaying a plurality of prior data inputs for a time unit M, where M is configurable at run-time to a first value." Claim 50 has been amended to recite "logic for delaying a plurality of prior data inputs for a time unit M, where M is configurable at run-time to a first value." Applicant respectfully submits that claims 1, 31, and 50 are allowable for at least the reason that the proposed combination of *Ikeda* in view of *Davis* does not disclose, teach, or suggest at least these features.

Ikeda discloses an interleaver in FIG. 9 where the time delay varies according to the position of switch 31. The switch 31 is a commutator which advances with each symbol: the first symbol has a zero delay, the next symbol has a delay of one, the next has a delay of two, etc. Applicant's invention, as defined by claims 1, 31, and 50, stores a portion of a symbol and outputs the portion of that particular symbol after a time delay, where the value of the time delay "is configurable at run-time." In contrast, although the time delay in *Ikeda* varies from one symbol to the next, *Ikeda* teaches that the time delay for a particular symbol is <u>fixed</u> by the design of the interleave circuit 5.

Davis does not disclose a time delay that is configurable at run-time. Accordingly, the proposed combination of *Ikeda* in view of *Davis* does not teach the above-described features recited in amended claims 1, 31, and 50. Thus, amended claims 1, 31, and 50 overcome the rejection, and the rejection should be withdrawn.

3.   Rejection of Claims 1-7, 10-21, 24-28, 31-35, 38, 50-54, and 57 under 35 U.S.C. §103

Claims 1-7, 10-21, 24-28, 31-35, 38, 50-54, and 57 have been rejected under §103(a) as

allegedly obvious over *Herzberg* (U.S. 5,996,104) in view of *Khoury* (U.S. 5,912,898).

Applicant respectfully traverses these rejections. It is well established at law that, for a proper

rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of

references, the cited combination of references must disclose, teach, or suggest, either implicitly,

all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d

1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

   a. Claims 1, 16, 31, and 50

The elements of claims 1, 16, 31, and 50 are not specifically discussed by the Office

Action. Applicant assumes, *arguendo*, that claims 1, 31, and 50 are rejected under the same

reasoning discussed in connection with claim 16, that is, that *Herzberg* FIG. 4A discloses all

claimed elements except "the plurality of prior data inputs being subjected to a variable time

delay" and "variably delaying a plurality of prior data inputs."

Applicant has amended claim 1 to recite "a memory element, the memory element being

capable of storing a plurality of prior data inputs and outputting the plurality of prior data inputs

after a time delay having a value M, where M is configurable at run-time to a first value." Claim

16 has been amended to recited "a time delay element having a delay value M, where M is

configurable at run-time to a first value." Claim 31 has been amended to recite a "second means

for delaying a plurality of prior data inputs for a time unit M, where M is configurable at run-

time to a first value." Claim 50 has been amended to recite "logic for delaying a plurality of

prior data inputs for a time unit M, where M is configurable at run-time to a first value."

Applicant respectfully submits that claims 1, 16, 31, and 50 are allowable for at least the reason

that the proposed combination of *Herzberg* in view of *Khoury* does not disclose, teach, or suggest at least these features.

Khoury discloses an interleaver in FIGs. 1 and 2 where the time delay varies according to the position of a switch. The switch is a commutator which advances with each symbol: the first symbol has a zero delay, the next symbol has a delay of one, the next has a delay of two, etc. Applicant's invention, as defined by claims 1, 16, 31, and 50, stores a portion of a symbol and outputs the portion of that particular symbol after a time delay, where the value of the time delay "is configurable at run-time." In contrast, although the time delay in *Khoury* varies from one symbol to the next, *Khoury* teaches that the time delay for a particular symbol is fixed by the design of the convolutional interleaver.

Herzberg does not disclose, teach, or suggest a memory element using a time delay "configurable at run-time." In addition, Applicant respectfully disagrees with the allegation in the Office Action that the serial-to-parallel converter 12 in FIG. 1 of *Herzberg* corresponds to a switch. Applicant respectfully disagrees. A "switch," as understood by a person of ordinary skill in the art, connects a single input to a single output. The serial-to-parallel converter 12 does not connect one input to one output, but instead buffers a number of input bits to simultaneously produce multiple outputs, where each output is fed to a different encoder E_n.

Accordingly, the proposed combination of *Herzberg* in view of *Khoury* does not teach the above-described features recited in amended claims 1, 16, 31, and 50. Thus, amended claims 1, 16, 31, and 50 overcome the rejection, and the rejection should be withdrawn.

b. Claims 2-7, 10-15, 17-21, 24-28, 32-35, 38, 51-54, and 57

Since claims 1, 16, 31, and 50 are allowable for at least the reasons discussed above, Applicant respectfully submits that claims 2-7, 10-15, 17-21, 24-28, 32-35, 38, 51-54, and 57 are

allowable for at least the reason that each depends from an allowable claim. *In re Fine*,

837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully

requests that the rejection of claims 2-7, 10-15, 17-21, 24-28, 32-35, 38, 51-54, and 57 be

withdrawn.

4.   Rejection of Claims 8, 9, 22, 23, 36, 37, 55, and 56 under 35 U.S.C. §103

Claims 8, 9, 22, 23, 36, 37, 55, and 56 have been rejected under §103(a) as allegedly

being obvious over *Herzberg* (U.S. 5,996,104) in view of *Khoury* (U.S. 5,912,898) and further in

view of *Ross* (U.S. 4,901,319). Applicant respectfully traverses these rejections. Since claims 7,

21, 36, and 55 are allowable for at least the reasons discussed above, Applicant respectfully

submits that claims 8, 9, 22, 23, 36, 37, 55, and 56 are allowable for at least the reason that each

depends from an allowable claim. In re Fine, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed.

Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 8, 9, 22, 23,

36, 37, 55, and 56 be withdrawn.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-28, 31-28, 50-57, and 90-93 be allowed to issue. Although some dependent claim rejections and some obviousness rejections are explicitly addressed above, the omission of arguments for other claims is not intended to be construed as an implied admission that the Applicant agrees with the rejection or finding of obviousness for the respective claim or claims. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**

By: _____
Karen G. Hazzah, Reg. No. 48,472

100 Galleria Parkway, NW
Suite 1750
Atlanta, Georgia 30339-5948
Tel: (770) 933-9500
Fax: (770) 951-0933

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